

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-99. **(Canceled)**

100. **(Previously presented)** A nucleic acid encoding a non-naturally-occurring transcriptional regulatory protein that comprises:

a chimeric nucleic acid binding domain including at least two nucleic acid binding motifs, at least one of which is a zinc finger; and

a transcriptional regulatory domain, wherein the non-naturally-occurring transcriptional regulatory protein (a) recognizes a nucleic acid sequence not recognized by a protein containing only one of the nucleic acid binding motifs present in the transcriptional regulatory protein, and (b) when bound to the recognized sequence, regulates transcription from an operatively linked promoter.

101. **(Currently amended)** The nucleic acid of claim ~~99~~ or 100, wherein the nucleic acid binding domain includes at least two zinc fingers.

102. **(Currently amended)** The nucleic acid of claim ~~99~~ or 100, wherein the nucleic acid binding domain includes at least a second nucleic acid binding motif selected from the group consisting of helix-loop-helix motifs, helix-turn-helix motifs, basic domains, zinc fingers, and combinations thereof.

103. **(Currently amended)** The nucleic acid of claim ~~99~~ or 100, wherein the transcriptional regulatory domain activates transcription.

104. **(Currently amended)** The nucleic acid of claim ~~99~~ or 100, wherein the transcriptional regulatory domain represses transcription.

105. **(Currently amended)** The nucleic acid of claim ~~99~~ or 100, wherein at least one nucleic

acid binding motif is selected from the group consisting of helix-loop-helix motifs, helix-turn-helix motifs, basic regions, and combinations thereof.

106. **(Currently amended)** The nucleic acid of claim ~~99~~ 100, wherein the zinc finger is from a protein selected from the group consisting of transcription factor IIIA, SW15, Krüppel, Hunchback, and a steroid receptor.

107. **(Currently amended)** The nucleic acid of claim ~~99~~ 100, wherein the zinc finger is from Zif268.

108. **(Currently amended)** The nucleic acid of claim ~~99~~ 100, wherein the at least two nucleic acid binding motifs are separated by at least one amino acid.

109. **(Currently amended)** The nucleic acid of claim ~~99~~ 100, wherein each of the nucleic acid binding motifs, when incorporated into a protein, binds to a specific DNA sequence element.

110. **(Previously presented)** The nucleic acid of claim 109, wherein the nucleic acid encodes a protein that recognizes a composite binding site made up of the specific DNA sequence elements recognized by the nucleic acid binding motifs.

111. **(Previously presented)** The nucleic acid of claim 110, wherein the nucleic acid encodes a protein that binds to the composite binding site with higher affinity than it does to any of the specific DNA sequence elements.

112-114. **(Canceled)**

115. **(Previously presented)** A vector comprising a nucleic acid of claim 100.

116. **(Previously presented)** The vector of claim 115, further comprising expression control sequences permitting gene expression in eukaryotic cells.

117. **(Previously presented)** A kit comprising a vector of claim 115 and a gene operably linked to a composite binding site to which the non-naturally-occurring transcriptional regulatory protein encoded by the vector binds.

118. **(Canceled)**

119. **(Previously presented)** A method for modulating expression of a gene in a cell, comprising:

providing a cell containing a chimeric DNA binding element operatively linked to a promoter; and

expressing the nucleic acid of claim 100 in the cell, such that the non-naturally-occurring transcriptional regulatory protein is produced, binds to the chimeric DNA binding element, and regulates transcription from the promoter.